

REMARKS

Claims 1-62 have been canceled. No claims have been amended. New Claims 63-84 have been added. Claims 63-84 are now in the application.

Rejection of Claims

Claims 1-62 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-36 of copending Application No. 10/202,705. Claims 1-62 have been canceled thereby obviating the rejection. Withdrawal of the rejection is respectfully requested.

New Claims 63-84 have been added. Claims 63-84 are derived from Claims 1-2, 4, 6-8, 10-12, 14, 17-19, 24-25, 27-30, 32, 34, and 39 of application serial number 10/973,891 Mosca, filed Oct 26, 2004, and showing potential priority to application serial number 60/548,140 filed Feb 26, 2004. Since this application has a filing date of July 24, 2003, this application has priority over the '891 Mosca application.

New Claims 63-84 are introduced herein to establish the instant application as a prior art reference against the '891 Mosca application.

Applicant offers the following comments regarding support, in the originally-filed application, for the respective claims.

63. A device adapted and configured to stabilize adjacent vertebrae of a spine [*application as originally filed e.g. page 3 lines 23-26*], the device comprising:

- (a) a plate having a bottom side generally adapted to face a plurality of vertebrae and a top side generally facing opposite the bottom side [*e.g. page 2 lines 10-22*];

- (b) a plurality of bores defined by the plate and passing through the plate from the top side to the bottom side of the plate [*e.g. the various FIGURES*];
- (c) at least two bone anchors [*e.g. page 2 lines 10-22*], each having a shank and a head [*e.g. FIGURES 9A, 9B*], the head having a top surface [*e.g. FIGURES 9A, 9B*], the two bone anchors being insertable into respective ones of the bores for securing the plate to the vertebrae [*e.g. page 2 lines 10-22*]; and
- (d) a retainer [*e.g. FIGURES 6A-6C and 7*] for preventing anchor back-out [*e.g. FIGURES 9A, 9B*], the retainer being positioned within at least one of the bores between the top side and the bottom side of the plate [*e.g. FIGURES 1, 2, 3*], the retainer having
 - (i) an initial position [*e.g. FIGURES 1, 2, 3*] where at least a first portion of the retainer partially intersects the bore,
 - (ii) a passage position [*e.g. FIGURE 9A*] wherein the head of the anchor inserted into the bore passes the retainer as the anchor is driven to secure the plate to the respective vertebra, and
 - (iii) a retention position [*e.g. FIGURE 9B*] wherein the at least a first portion of the retainer partially intersects the bore and is located proximal to the top surface of the head,

wherein the retainer has a closed end portion [*end portion adjacent compression spring 38A or spring 38C*] which is stabilized with respect to the plate [*e.g. by stud 16*] and has generally straight portions [*bands 36A, 36B*] extending from the closed end and across at least a portion of the bore [*e.g. FIGURES 1, 2, 3*].

64(new). The device of claim 63 wherein the plate has a generally arcuate shape [e.g. *FIGURES 1, 4, 5, and 8*].

65(new). The device of claim 63 wherein the bores include a pair of bores for a first vertebra [e.g. *FIGURES 1, 2*].

66(new). The device of claim 63 wherein the device spans at least two vertebrae, and at least one bore is provided for each of the vertebrae [e.g. *page 3 lines 14-16*].

67(new). The device of claim 66 wherein first bores prevent movement of the plate relative to a first vertebra, and second bores permit movement of the plate relative to a second vertebra [e.g. *page 6 lines 21-28*].

68(new). The device of claim 67 wherein third bores permit movement of the plate relative to a third vertebra [e.g. *page 6 lines 21-28*].

69(new). The device of claim 66 wherein at least one bore permits an anchor secured therein and secured to a vertebra to translate relative to the plate within the bore [e.g. *page 6 lines 21-28*].

70(new). The device of claim 69 wherein at least one bore prevents an anchor secured therein and secured to a vertebra from translating relative to the plate within the bore [e.g. *page 6 lines 21-28*].

71(new). The device of claim 70 wherein bores preventing anchor translation are generally circular [e.g. *page 6 lines 21-28*].

72(new). The device of claim 69 wherein bores permitting anchors to translate are elongated [e.g. *page 6 lines 21-28*].

73(new). The device of claim 63 wherein each bore includes an interior surface and the interior surface defines a recess for receiving at least a portion of the retainer [e.g. *FIGURE 1*].

74(new). The device of claim 73 wherein the recesses generally define a channel [e.g. *FIGURE 1*].

75(new). The device of claim 73 wherein the first and second ends of the retainer are received in the recesses [e.g. *FIGURE 1*].

76(new). The device of claim 63 wherein, when the anchors are in place, mounting the plate to bone structure of a recipient user thereof, the retainer for each anchor is positioned so as to be above the top surface of the anchor [e.g. *FIGURE 9B*].

77(new). The device of claim 76 wherein the plate includes a shoulder extending into the bore proximate the bottom surface of the plate and defining in part the bore for receiving the shank of the anchor, the shoulder having an arcuate profile, the head of the anchor having a generally bottom surface with an arcuate profile, the shank of the anchor

being smaller than the aperture, the head being larger than the portion of the bore at the shoulder, and the arcuate profile of the shoulder being complementary to the arc of the bottom surface of the head [e.g. *FIGURE 9B*].

78(new). The device of claim 63 wherein the head of the anchor has a generally arcuate bottom surface, and the bottom surface cams against generally straight portions of the retainer so as to open the retainer from the initial position to the passage position so as to permit the head to pass therethrough [e.g. *FIGURES 9A, 9B*].

79(new). The device of claim 78 wherein the retainer position shifts to the retention position after the head is driven past the retainer such that the top surface of the anchor is unable to cam open the generally straight portions of the retainer so as to prevent anchor back-out [e.g. *FIGURE 9B*].

80(new). The device of claim 63 wherein the retainer has a generally upwardly facing surface portion, a generally downwardly facing surface portion, and a generally inwardly facing surface portion, and the anchor head contacts at least one of the surface portions thereby to shift the retainer between the initial position and the retention position [e.g. *FIGURE 9A*].

81(new). The device of claim 80 wherein the anchor head cams against at least one of the surface portions of the retainer thereby to shift the retainer between the initial position and the retention position [e.g. *FIGURES 9A, 9B*].

82(new). The device of claim 63 wherein the retainer follows a continuous path and

participates in defining an opening along the bore through which the anchor passes as the anchor secures the plate to the vertebra [e.g. *FIGURES 1, 2, 6/a-6c, 9A, 9B*].

83(new). The device of claim 63 wherein the generally straight portions of the retainer extending between the first and second ends are generally parallel in the initial position [e.g. *FIGURES 6A-6C*].

84(new). A device for stabilization of adjacent vertebrae of a spine [e.g. *page 3 lines 23-26*], the device comprising:

- (a) a spinal plate having a bottom side generally adapted to face a plurality of vertebrae, and a top side generally facing opposite the bottom side [e.g. *page 2 lines 10-22*];
- (b) a plurality of bores defined by the plate and passing through the plate from the top side to the bottom side of the plate [e.g. *the various FIGURES*];
- (c) bone anchors [e.g. *page 2 lines 10-22*], each having a shank and a head [e.g. *FIGURES 9A, 9B*], the head having a top surface [e.g. *FIGURES 9A, 9B*], the anchors being insertable into the bores thereby to secure the plate to the vertebrae [e.g. *page 2 lines 10-22*]; and
- (d) a retainer [e.g. *FIGURES 6A-6C, 7*] adapted and configured to prevent anchor back-out [e.g. *FIGURES 9A, 9B*], the retainer being positioned within at least one of the bores [e.g. *FIGURES 1, 2, 3*],

the retainer having first and second end portions stabilized with respect to the plate [e.g. *by stud 16*],

at least one portion between the first and second end portions being deflectable from an initial position to a passage position to permit the head of an anchor to move into the bore and past the retainer [e.g. *FIGURE 9A*], and

the retainer being biased to return to the initial position after the head has passed the retainer thereby to extend across a portion of the bore and prevent back-out of the anchor [e.g. *FIGURE 9B*].

85(new). A spinal plate assembly adapted and configured to stabilize adjacent vertebrae of a spine [e.g. *page 3 lines 23-26*], said spinal plate assembly comprising:

- (a) a spinal plate, said spinal plate comprising a top surface, a bottom surface opposite the top surface, the bottom surface being adapted and configured to be positioned adjacent a plurality of vertebrae of a recipient user [e.g. *page 2 lines 10-22*], and a plurality of bone-fastener-receiving apertures which pass through said spinal plate from the top surface to the bottom surface, as to each such bone-fastener-receiving aperture, said spinal plate defining a projected outer perimeter extending about an aperture body [e.g. *FIGURES 1, 2, 3*]; and
- (b) a retainer assembled in said spinal plate assembly with said spinal plate [e.g. *FIGURES 1, 2, 3*], a portion of said retainer extending
 - (i) at a first locus, across the projected outer perimeter and into the body, of at least one of the bone-fastener-receiving apertures [e.g. *FIGURES 2, 3*],
 - (ii) from the first locus, across a portion of the aperture body [e.g. *FIGURES 2, 3*], and

- (iii) at a second locus, displaced from the first locus, back across the projected outer perimeter and off the body of the respective bone-fastener-receiving aperture [e.g. *FIGURES 2, 3*], and wherein the portion of said retainer which extends across the portion of the aperture body has a straight section [e.g. *FIGURES 2, 3*].

86(new). A spinal plate assembly as in Claim 85 wherein said retainer is under constant compressive forces when so assembled to said spinal plate [e.g. *page 15 lines 13-30*].

87(new). A spinal plate assembly as in Claim 85 wherein the straight section extends generally uninterrupted from the first locus to the second locus [e.g. *FIGURES 2 and 3*].

88(new). A spinal plate assembly as in Claim 85 wherein said retainer so extends across a first such bone-fastener-receiving aperture, and also extends across a second such bone-fastener-receiving aperture [e.g. *FIGURES 2, 3 6A, 6B, 6C*].

89(new). A spinal plate assembly as in Claim 86 wherein said retainer so extends across a first such bone-fastener-receiving aperture, and also extends across a second such bone-fastener-receiving aperture [e.g. *FIGURES 2, 3 6A, 6B, 6C*].

90(new). A spinal plate assembly as in Claim 87 wherein said retainer so extends across a first such bone-fastener-receiving aperture, and also extends across a second such bone-fastener-receiving aperture [e.g. FIGURES 2, 3 6A, 6B, 6C].

Applicant submits that all bases of rejection and objection have been overcome, that no new matter has been added, and that the new claims are allowable over all references of record, whereby all of the claims as presented herein are allowable over all prior art of record. Allowance of all claims in the application is respectfully solicited.

A check in the amount of \$60. is enclosed herewith to pay the fee for a one month extension, respectfully requested hereby, from December 7, 2005 to January 7, 2006. No other fee is believed to be due. Should any additional fee be properly due, or if any refund is due, kindly charge same, or credit any overpayment, to Deposit Account 23-2130.

Please feel free to contact the undersigned with any questions, comments or concerns, at the telephone number listed below.

Respectfully submitted,
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